

PLASMA PROCESSING MATERIAL RECLAMATION AND REUSE

Abstract

An integrated circuit plasma processing system, apparatus and method for reclaiming material, such as a plasma precursor and potentially useful components among their byproducts, from plasma-enhanced exhaust of a plasma process chamber for subsequent reuse in the chamber. The apparatus provides a recycle feedback loop for a plasma process chamber that provides the high purity materials necessary for microelectronic applications. Since the apparatus is in-situ, no byproducts that are not already present are possible. Accordingly, the apparatus guarantees purity of the recycled material. In addition to cost savings, the invention provides an environmentally friendly plasma process chamber and apparatus with very little production of waste.